

Community Assistantship Program

**Sustaining Green Space in the Rural-Urban Fringe:
*A Landowner's Guide***

Sustaining Green Space in the Rural-Urban Fringe:
A Landowner's Guide

Prepared in partnership with
Green Sprawl Working Group

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A Landowner's Guide

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May, 2001

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This booklet is a glimpse of many diverse initiatives and enterprises that are actively 'greening' the suburban metro frontier of Minneapolis and St Paul.

Our group, the Green Sprawl Working Group, came together to look at the process which converts farm land, wild land and open space into the urban web. We found that beside the many defeats, defects and disastrous steps taken toward sprawl, 'green islands' persist. There are unique initiatives, as well as more common and shared projects, that challenge our thinking and received assumptions about sprawl. Some people are in fact greening the sprawl.

The ways people respond to sprawl are quite varied. This booklet directs attention to four aspects of sprawl that need be addressed in building capacity, guiding visions and included in plans for continued fringe development, in order to prevent and mitigate some of the well noted impacts.

1] Private responses: Some individuals and parties forego a large economic benefit to keep a land parcel intact. They use it to produce a product, pursue a hobby or create an amenity. They refuse to sell their green island home for development.

2] Public responses: Multiple levels of local, regional, state and federal government impact each individual green island. To sustain and promote small land and home based businesses requires flexibility from officials, neighbors and the community and is at variance with the dominant approach to economic development. Effective decentralized and cooperative development strategies recognize that trade offs of valued ecosystem services for growth result in hidden costs and future problems.

3] Interdependence: The city would be less attractive and less healthy without the green islands, and in turn the green islands less valued and lessened opportunity without the city. A diverse metro market both creates economic potential, and limits the sustainability of the green islands.

4] Scale: Small can be beautiful, but larger is also needed. For example, most plants and animals have particular habitat requirements, and many need large areas and linked areas of land to provide their biological needs. The developed environment is in fact a mosaic of the built, the remnant, and the open. Linked remnant and restored open space is the most likely outcome we could imagine in the short term.

The context of our study:

Our intent is that our modest review will contribute to the urban-suburban-rural dialogue and build a context and animate connections for more effective action.

Our study is only one of many efforts that strive toward a deeper understanding of the metro economics and effects of sprawl. "Finding Food in Farm Country " is a new and noteworthy regional study of the farm and food economies of Southeast Minnesota. The report documents huge and tragic losses to the region as a result of the economic structures under which the region's residents grow and sell food. Their report for the Community Design Center by Ken Meter [Crossroads Resource Center] and John Rosales [Institute for Social, Economic and Ecological Sustainability at the University of Minnesota] may be downloaded free at < <http://www.crcworks.org/ff.pdf> >* The Green Sprawl Working Group views this study of food sector and regional farm economics as a crucial model for looking at the green sector economy of our metro region.

A statewide review of initiatives that are "Renewing the Countryside" is at < www.MNCOUNTRYSIDE.ORG >. Many examples are reported in greater detail on this web page and in the companion book called "Renewing the Countryside" available

from the Institute for Agriculture and Trade Policy, 2105 First Ave. S, MPLS, MN 55404.

The broader discussion of food security, 2002 farm bill, multifunctionality of [European] rural landscape, Ecological Economics, participatory research and development, community forestry, open space preservation, corridors, parks, waterways and wetlands all are part of this discussion of planning for smart growth, greening for biodiversity, and sustainable development. The productivity of the landscape, both its ecosystem services and its basis for small and medium enterprise formation, are both undervalued and rarely aggregated in estimated effects.

Fragmentation continues because the political economy of citification depends on expanding markets for development on the suburban frontier. Since no one knows the future and we can't agree on the lessons of the past, the status quo proceeds...except for changing conditions, all is swell. The most formidable challenge to planning is knowing the future.

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I would also like to anonymously thank the City Administrator, Senator, Representative and Metropolitan Council member who gave me a small window into the Macro Level world.

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Kyla Zaro-Moore, May, 2001

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I. Introduction to the Guidebook

In light of recent growth trends in the Twin Cities seven county metro area, sustainable land-based microenterprises* are becoming increasingly important in preserving green space in the rural-urban fringe. These agricultural and natural areas are quickly succumbing to development as the urban population grows and moves outward toward more rural areas.

The results of this urban exodus include rising property taxes and new neighbors, both of which push farmers and other land-based producers out of the rural-urban fringe. Unfortunately, the development that replaces them often has a detrimental ecological impact.

* For definitions of these and other key terms, refer to the Glossary.

The purpose of this guidebook is to provide some background information about important issues in the rural-urban fringe and to help landowners in this area to utilize their land in an environmentally sustainable and economically successful manner. What follows is a brief summary of the effects of sprawling urban development on agriculture, culture and the environment and strategies that people have and could use in order to preserve and restore green spaces at the expanding urban fringe.

History of Sprawl

Cities began to spread dramatically after World War II. Automobiles and roads allowed for this expansion and dirty industrial cities made expansion desirable. American ideals of living in the countryside mixed with American desire for convenience led to the creation of suburbs, and then suburbs of suburbs, within commuting distance of metro areas. Until recently, cities have not planned for any of this development, but now, some local governments are trying to correct this oversight. This correction will be a long and difficult process that includes long-term planning that would affect the choices of development agencies, homebuyers, and landowners.

Effects of Sprawl

Sprawling development has increased the market value of near-urban agricultural land and open space, leading to increased taxes. Unfortunately, farmers can only increase production to a certain point, often not enough to cover new taxes that are based on the market value instead of use value of farmland. Even if some farmers decide to face these taxes and continue farming, often not enough are left to support sufficient agricultural infrastructure. This means that farmers have to travel longer distances to get basic supplies and veterinary care. The farms that become developed will be home to people who may not be used to some of the daily facts of agricultural life. These new neighbors may try to sue or create policies against noise, dust, and other farm-related “nuisances” that previously posed no problem. They may also vandalize nearby farms, or get hurt on them, in which case the farmer may be liable.

Another concern of increasing urbanization is the culture clash between farm and non-farm neighbors. Many fights ensue over who pays for the new sewers, schools, and other infrastructure required by new neighbors. However, new neighbors bring new points of view that may be helpful in reinvigorating the economies of developing areas for the benefit of all.

Finally, any way you look at it sprawling development causes environmental degradation. As areas are paved over and built up, ecosystem functions like water filtration are lost, leading to increased costs of water treatment. Fortunately, people are beginning to realize the many values of well-managed farmland and green space and to think about ways to encourage planning and choices of development that are less destructive to the environment.

Strategies to Mitigate the Impacts of Sprawl

Governments, developers, organizations and individuals have created ways to preserve land at the rural-urban fringe. Some of these strategies are more successful than others and all have their advantages and disadvantages. There are three categories of strategies: 1) agricultural land preservation strategies, 2) development strategies, and 3) farmer-based solutions. These include different levels of public and private intervention or participation. This guidebook addresses the third strategy by exploring what landowners can do to preserve their land, perhaps while working within the framework of the first two strategies.

The Role of Agriculture in the Rural-Urban Fringe

Agriculture at the rural-urban fringe around the world is many things to many people. It is a livelihood, open space, wildlife habitat, and more. Agriculture carried out in a sustainable manner can have a positive effect on the environment at the rural-urban fringe. Agricultural and green belts around cities could play an important role in keeping urban sprawl in check as well as improve ecosystem functioning. Also, growing food near cities decreases the amount of energy spent in transporting food and provides cities with fresher and healthier food, thereby increasing local food security. Sustainable agriculture helps to close the nutrient loop in cities not only by reducing need of imported food, but also by recycling its own waste through composting. Finally, family farms can continue to exist at the rural-urban fringe as they shift production from commodity crops to high-value products and direct marketing to urban residents. This urban and rural co-existence also helps urbanites realize the value of sustainable agriculture as they see it in action.

For all these reasons, agriculture plays a very important role in the functioning of cities, even if the agriculture is carried out in small, scattered lots. This kind of agriculture may be more akin to horticulture than to the traditional concept of agriculture. Much of the agriculture in the Twin Cities metro area happens on lots as small as an acre up to a couple hundred acres. Production is focused on high value crops and value-added products as opposed to commodity crops (commodity crops are subsidized by the government and grown in large quantities, such as sugar beets, wheat and corn). The farmers and gardeners in the metro area try to market to urban dwellers who are willing to pay a premium for local goods and organic foods. For a better idea of what kind of production is happening in the Twin Cities metro area, please refer to the Case Studies section of this publication.

Conclusion

The Green Sprawl Working Group (GSWG) presents this guidebook as an effort to focus on agriculture and other green enterprises at the rural-urban fringe from a landowner's point of view. The GSWG hopes to inspire landowners to seek economically, socially and environmentally sustainable solutions to remain on the land. It will do so by providing landowners with a catalogue of opportunities for and examples of

microenterprises on the rural-urban fringe as well as a thorough list of resources available to assist landowners in pursuing new enterprises. Please consider this guidebook not as a “how-to” manual, but as a source for new ideas and a resource for pursuing those ideas and more.

II. Opportunities

Introduction

If you want to find out about anything from forming a cooperative marketing group to raising llamas in Minnesota metro areas, this section will help you track down the agencies and organizations that can provide information, technical assistance, funding, and networking in your area of interest. There are a number of organizations that support alternative agricultural enterprises and it can be difficult to figure out which ones will best support your needs. Therefore, the purpose of this section is to help the enterprising landowner locate useful organizations.

Also included here are opportunities for those who may not want to start a new enterprise, but are interested in supporting sustainable projects on the rural-urban fringe. To this end, information is provided on how to support local sustainable producers.

Another opportunity that should not be overlooked is local government. This section will include tips on working with local government to create policies that favor local sustainable enterprises.

Finally, this piece of the guidebook will conclude with opportunities for communities to plan for green and open space, agriculture and sustainable development.

Contact information for all the organizations, agencies and publications mentioned in this section is listed in full in the Resources and Bibliography sections of the guidebook. The following is not an exhaustive list, but should be helpful for pointing people in the right direction. Please excuse the author if any important resources or opportunities have been overlooked.

Support for Agricultural Enterprises

These organizations and agencies provide a wide array of services to a variety of audiences. What follows is a description of each organization, including what services it provides to whom. Keep in mind that the budgets of most of these organizations are small, though effective. Using the services of these organizations helps build a case for their continued support, and if you desire to go one step further, see the Government section below for tips on how to lobby for their continued funding.

A good place to start is with **Minnesota Grown Opportunities (MGO)**. This is a collaborative effort of the Minnesota Department of Agriculture, the Agricultural Utilization and Research Institute, and the University of Minnesota. MGO provides

information on a number of farm diversification options, how to get funding, and various projects and publications. This is a great resource for browsing for ideas and looking at the variety of agricultural enterprises possible in Minnesota as well as getting information on specific topics. Many of MGO's publications are available on-line from its web site: www.mgo.umn.edu.

Another local source of information, grants and other useful tools is the Minnesota Department of Agriculture's **Energy and Sustainable Agriculture Program (ESAP)**. ESAP demonstrates and promotes alternative agricultural practices that enhance the self-sufficiency of Minnesota farmers by being energy efficient, environmentally sound and profitable. In order to do this, ESAP provides demonstration grants for farmers, agricultural researchers and educators and non-profit organizations. The grants can be used for projects that last up to three years. ESAP provides other services as well, including whole farm planning, in which the farmer learns to consider the entire farm when making decisions about any one aspect of it. ESAP also organizes farmer planning meetings, which allow farmers to come together and share their experiences in farm planning and decision making. The *Greenbook* is ESAP's annual summary of the program's activities and grant project reports. ESAP is a good agency to go to for help with funding on-farm research and for finding out about the activities of other farmers through field days, workshops and speakers. For more detailed information about its different programs, check out the web site: <http://www.mda.state.mn.us/esap/>.

The **Minnesota Institute for Sustainable Agriculture (MISA)** is an important University of Minnesota resource. This Institute is a cooperative effort to develop and promote sustainable agriculture in Minnesota and beyond. It provides a database of sustainable agriculture resources that are useful to farmers, consumers, and researchers. Go to its web site (www.misa.umn.edu) to find out about who is involved in sustainable agriculture in Minnesota.

For assistance producing value-added farm products and new agricultural commodities, contact one of the several Minnesota offices of the **Agricultural Utilization Research Institute (AURI)**. AURI "works to improve the economy of rural Minnesota through the development of new value-added uses and the expansion of new markets for the state's agricultural commodities." This institute collaborates with the University of Minnesota and the Minnesota Department of Agriculture to work with individuals, businesses, cooperatives, commodity groups and farm organizations. It provides free technical, business, and marketing assistance to support new uses and value additions for farm commodities, and a limited number of matching grants. AURI publishes a free newsletter that can also be accessed on-line (www.auri.org), and has an on-line staff directory that clearly shows who to call for topic-specific information and questions. For consumers and curiosity-seekers, the web site also includes a marketplace of Minnesota products and home pages for a variety of AURI clients, who range from candle-makers to producers of kitty litter.

The **Sustainable Agriculture Research and Education (SARE)** program and the **Sustainable Agriculture Network (SAN)** (SARE's communications and outreach arm) provide publications and on-line bulletins about a variety of sustainable agriculture issues. Most importantly, though, SARE has funding opportunities for producers, professional development and on-farm research. In addition to these grants, SARE also recently published (in association with other USDA programs and agencies) the *Building Better Rural Places* guide to Federal assistance in agriculture, forestry, conservation and rural community development. This, along with information about the SARE grants, is available on-line (www.sare.org). This web site includes a section on how to write good grant proposals, which is worth looking at before applying for any SARE grant. The North Central Region branch of SARE gives links to sustainable agriculture programs, organizations and contacts in Minnesota. Bill Wilcke is the Minnesota SARE representative and can be reached at (612) 625-8235 for more information.

Appropriate Technology Transfer for Rural Areas (ATTRA) operates the national sustainable farming information center, and is the organization to turn to for information beyond Minnesota. ATTRA provides information and technical assistance to farmers, Extension agents, market gardeners, agricultural researchers and other agricultural professionals. This organization operates in three broad areas: 1) sustainable farming production practices; 2) alternative crop and livestock enterprises; and, 3) innovative marketing. Anyone with a question about agriculture and agricultural enterprises can call ATTRA at (800) 346-9140 and a specialist there will prepare and send out a customized packet of appropriate publications, free of charge. This is a great way to start researching any new enterprise. ATTRA also has publications and resources for many small-scale agricultural enterprises as well as for transitioning to organic agriculture, direct marketing, and more. Many of these publications are available on-line for browsing at www.attra.org.

The **University of Minnesota Extension Service** provides information, advice, workshops and other types of education on a variety of topics. With an office in each county, Extension is a great local resource. County Extension Agents are knowledgeable about local issues as well as current agricultural research, and are very dedicated to improving the condition of farmers and farms. The Extension Director can be reached at dir@extension.umn.edu or (612) 624-1222, and individual county offices can be located at www.extension.umn.edu/offices.

Another place to find publications on alternative farming enterprises is the **National Agricultural Library (NAL)**. Librarians can help you find resources for specific topics (call (301) 504-6559 or (301) 504-5724), or you can search for yourself at their web site: www.nal.usda.gov/afsic.

For landowners with forested lands, the **Community Forestry Resource Center (CFRC)** at the Institute for Agriculture and Trade Policy is an indispensable resource. The CFRC helps landowners work together to capture more value from their resources through cooperation, Forest Stewardship Council certification and adding value to their forests. Call (612) 870-3407 or visit CFRC's web site (www.forestrycenter.org) for more

information. For other agroforestry resources, seek out the **Center for Integrated Natural Resource and Agriculture Management** (www.cnr.umn.edu/FR/cinram/) at the University of Minnesota, and **Badgersett Research Corporation**, which focuses mainly on hazelnut and chestnut production for northern climates (www.badgersett.com).

Finally, small business advice and assistance for starting a microenterprise are available through a number of agencies. Almost all the organizations mentioned above are able to give varying levels of support to small businesses, but the following organizations specialize in this area. The **University of Minnesota Extension Service** has a program for communities interested in business retention and expansion (**BR & E**) in a number of fields. Find out more about this program through its web site (www.extension.umn.edu/projects/bre/index.html) or call (612) 625-6246.

For individuals, the Minnesota Department of Trade and Economic Development's **Small Business Assistance Office** provides information on starting, operating and expanding businesses in Minnesota and the regional **Small Business Development Centers (SBDCs)** provide one-on-one business management counseling. Contact the Metro SBDC at (651) 962-4500 for more information, or go to the web site (www.dted.state.mn.us/01x00f.asp), where you can also order *A Guide to Starting a Business in Minnesota*.

Partners for Enterprise helps individuals with business development in the northwest suburbs ((612) 978-2178), and the **Riverbend Center for Enterprise Facilitation** gives similar assistance to individuals in southcentral Minnesota ((507) 386-7285). These programs both focus on working with individuals intensively in order to achieve personal as well as business success.

Opportunities for Consumers

Not everyone can or wants to start an agricultural enterprise, but even so, many people would like to support these developments. Fortunately, there are many ways to do so.

There are four main avenues of support for greening the metro area, and a description of each follows below.

1. Buy Locally

Buy food and other products from local producers to help create a vibrant local economy that can support a diversity of small, sustainable enterprises. Some venues for local produce and products are farmer's markets, food cooperatives and grocery stores (if your local store does not carry produce from nearby farms, get a few neighbors together and ask the grocer to buy locally, and s/he most likely will!). With a little Internet research, it is easy to locate local producers of everything from wine to wool. The **Land Stewardship Project (LSP)** (www.landstewardshipproject.org) publishes the *Community Supported Agriculture Directory*, which is a good way to find a community supported agriculture (CSA) farm to buy a share in. By buying a share in a CSA farm, you pay a

farmer up front for boxes of fresh-picked produce delivered weekly throughout the growing season. Some CSAs also produce honey, cut flowers, ready-made meals, eggs, and organic meat. LSP publishes the *Stewardship Food Network* as well, which consumers can use to find local producers of many goods. Both of these publications are available on-line or can be ordered from LSP's metro office by calling (651) 653-0618.

Along with food, local sustainably-produced timber products are also available. For your next building or craft project, call the **Community Forestry Resource Center** at (612) 870-3407 to locate sources of wood products that have come from sustainably managed forests.

The **Agricultural Utilization Research Institute** also has a marketplace of locally-produced products at its web site (www.auri.org). From this marketplace, consumers can link to the web pages of the producers or call them to find out more about the production and the product. Another good source is the free **Minnesota Grown Directory**, which lists farms and markets by region and by product. Call (651) 296-6890 or go to <http://minnesotagrown.com> for your own copy.

2. Grow Your Own

Another way to increase green space in the metro area and to create a more sustainable lifestyle without actually starting an enterprise is to grow your own food. This can be done in your backyard or in community gardens. For information on community gardening or to find community gardens near you, contact the **Sustainable Resource Center** at (612) 870-4255 or **Minnesota Green** at (651) 643-3601. If you have a yard, try landscaping with native plants to help improve the urban ecosystem. Some resources for landscaping with natives are: **Wild Ones – Natural Landscapers, Ltd.** (www.for-wild.org), and **University of Minnesota Extension** (www.extension.umn.edu), which can be reached at (612) or (888) 624-4771.

3. Support the Supporters

A good way to get involved in creating a sustainable local economy is to donate time or money to organizations that support the small enterprises. Many of the organizations mentioned in this publication are non-profits that rely on volunteers and interns to carry out much of the work, and are funded in a large part by donations and grants. Call these organizations or go to their web sites (this information can be found in the Resources section) to decide on how you can best support them.

4. Create Positive Policy

Lobby local government to pass laws that are supportive of small-scale sustainable green enterprises. For tips on how to do this, see the Government section below.

Opportunities for Working with Local Government

Individuals working hard can change a lot, but individuals working hard with the support of the government have a better chance of effecting long-term change. The key here is to realize that getting government support for community projects takes a great deal of work and requires developing relationships with local members of government.

This section should help people who would like to get government support for sustainable microenterprise projects. It includes suggestions for who and how to lobby.

How to Lobby Successfully

First of all, realize that elected officials depend on community support for votes. This means that if you present your case as something that will benefit the community at large and will make the elected official popular, you are likely to get some support.

One idea for presenting the case for supporting microenterprises is to focus on community development. If your enterprise provides jobs, especially to teens or seniors, make sure to mention this. Another increasingly important issue now is traffic congestion. If you make the point that microenterprises are basically home-based businesses that reduce the need to commute, this creates a very strong argument.

Before you argue your case to local elected officials, build support first. Gather other microenterprise owners, consumers and neighbors who want to support your business in order to build a coalition so your elected officials will see that you have community support. Also, it is a good idea to let officials know about your business before you ask anything of them. If you have field days, festivals, markets or other public events, send out invitations to City Council members and your representatives. When you do approach elected officials, prepare a one-page report that succinctly describes who you are, what you want and why. Be prepared to describe your business or coalition in twenty minutes or less, and make sure to mention anything you do that has a positive impact on your community. This can be everything from providing jobs to providing wildlife habitat.

Language is very important when talking to elected officials. Use language that they are familiar with. The word “microenterprise” may be unclear to some officials, but “home-based occupation” is a term with which they are comfortable. Clarity is another important aspect when lobbying local officials. Let them know exactly what you want and why you want it.

It would be wonderful if the government would recognize that, if seen as a whole, the agricultural microenterprises in the metro area really contribute a lot to local economy, community, and ecology. This recognition could result in benefits such as favorable tax policy for sustainable home-based businesses. However, the government will not recognize this until individual producers and consumers band together to ply their case.

To find out who your local representatives and senators are, call (651) 296-2146 for House members and (651) 296-0504 for Senators. Your local City Hall can connect you with City Council members.

Another important resource is your local Chamber of Commerce. Although Chambers of Commerce do not have the power to pass legislation, they do have a lot of influence on tax laws and other important business considerations.

Finally, it might be worth talking to your local Metropolitan Council member. The Metro Council directs regional development, and is therefore a good body to approach when considering the direction of development on a metro-wide basis. Call (651) 602-1000 or go to their web site (www.metrocouncil.org) for more information.

Opportunities for Communities

Preserving green and open space in the face of sprawl is not just the responsibility of individuals and governments, but also of communities. Many communities nationwide have introduced and passed initiatives that provide methods of open space and agricultural land preservation in metro areas. Other communities have made greenways through cities and countryside possible. Cluster development in some metro areas allows for controlled growth to coexist with agricultural land and green/open space by developing some areas at a high density and reserving other areas for green/open space.

Some good resources are available to communities to help them ensure that development does not exclude green space. One publication called ***From Policy to Reality: Model Ordinances for Sustainable Development*** is a good source for templates of ordinances that communities can encourage cities to implement in order to support sustainable development (see Bibliography for access information).

Other options, including land preservation programs such as purchase or transfer of development rights, open space zoning and more, are outlined in the MN Department of Natural Resources publication, ***Natural Areas: Protecting a Vital Community Asset***. This publication provides tools for local governments who want to protect natural areas on public and private land, and can also be used as a template for agricultural land preservation. It also includes information about cluster development and outlines some case studies to illustrate how land preservation has worked in various Minnesota counties (see Bibliography for access information).

Conclusion

Individual producers and consumers, non-profit organizations, governments and communities are all interested in creating and supporting sustainable microenterprise development in the metro area. The struggle is to coordinate the efforts of all of these entities in order to create a system that fully supports small-scale land-based enterprises. The Green Sprawl Working Group hopes to encourage the development of such a system

by providing information that will help all the parties involved to access the resources that they need in order to create a greener environment on the rural-urban fringe.

III. Case Studies

Below are some local examples of sustainable enterprises located within the Twin Cities metro area. Many of the following people and organizations have made use of the above opportunities. These examples include an individual, a corporation, a cooperative, a non-profit organization and an organic community-supported agriculture farm. Being sustainable means that these enterprises are either working to be or are economically self-sustaining, and that the kind of agriculture that they practice does not deplete natural resources faster than they can be renewed. In some cases, these enterprises actually improve natural resources. The main concern about sustainability is clearly economic. Some of these enterprises rely on grants for the majority of their income, but hopefully with time they will gain the experience and market that they need to become economically self-sustaining. What follows are short descriptions of each case study. For the full descriptions, please see the Renewing the Countryside web site at <http://www.mncountryside.org>.

Renne Soberg

Renne Soberg was raised on his family's dairy farm in Lakeville, MN, where the Sobergs have been farming since the 1890s. The farm, greatly reduced in size after surviving many changes, is now under Renne's care. After working in Washington for the USDA, Renne returned to Minnesota to finish his education and ended up growing medicinal herbs to add another source of income to the farm.

Renne turned to medicinal herbs as an alternate income source because of an increasing global demand for organically grown herbs and a concern for taking the pressure off of unsustainably harvested wild stands. Renne chose an experimental list of herbs to grow by cross-referencing demand with species that are native and naturalized in Minnesota. That list has since been narrowed down due to performance and personal preference, and the main crops are catnip, red clover and dandelion.

With the help of a network of growers, buyers and practitioners, Renne is building his herb business and branching out into value-added products.

Dream of Wild Health

Dream of Wild Health is a collective effort to grow out ancient seeds saved for generations by Native Americans. Some of these seeds are 800 to 2000 years old, and they contain within them the key to a healthy future. Sally Auger, Executive Director, began this project when she realized that the decline of nutritional health in Native cultures could be counteracted by the reintroduction of traditional foods into their diet. Paul Red Elk joined her efforts a year later as the Program Director. In order to do

implement the goals of Dream of Wild Health, Sally and Paul decided to grow out the seeds of the plants that used to be the basis of Native diets.

Dream of Wild Health now has a Women's Garden and a Medicinal Garden on a farm in Farmington, MN. In the summer, children's groups from the city learn tool-making, scare-crow-making and other ancient Native arts at the American Indian Center in Minneapolis and get a chance to apply what they learn in the garden. Residents from the Native men and women's Recovery Houses also help tend the gardens. Dream of Wild Health uses some resources from the University of Minnesota to help study the nutrition of the plants and students come to the garden to help with tasks like corn pollination. The end result is a garden that provides a way to bring back traditional foods in a safe and welcoming environment. The garden is an arena where people of different generations and backgrounds can come together to learn respect, culture, and traditional gardening methods.

Badgersett Research Corporation

A book could be written on the work that Phil Rutter began 20 years ago. Concerned with the dilemma of how to continue feeding humankind without destroying the soil with annual tillage and chemicals, Phil turned to woody agriculture for answers. He started growing hybrid hazel bushes with the intent of domesticating them to the point where they could replace soybeans. Now, Phil is the CEO of Badgersett Research Institute in Fillmore County, Minnesota, where he collaborates with other interested parties in breeding and growing hybrid hazelnuts and chestnuts.

Northern Vineyards

To most people's surprise and astonishment, Minnesota supports a scattering of small vineyards and wineries. In order to get the word out and create a more stable and consistent market for Minnesota wines, a group of grape growers came together to start the Minnesota Winegrowers Cooperative about 18 years ago. In 1983, they opened Northern Vineyards Winery, where they could bring their grapes to make and sell wine. In the beginning, Coop members helped run the tasting room and make the wine. The Coop now boasts a Head and Assistant Winemaker. At its new location on Main Street in Stillwater, the Winery not only makes and sells wines, but also provides daily tastings and weekly tours and hosts community events.

Garden Farme CSA

Garden Farme is a CSA (Community Supported Agriculture) farm in Ramsey, Minnesota. Peter Seim started it in 1998 on land owned by Bruce Bacon. Pete came to agriculture through studying environmental science, and his interest in soil and water quality drew Pete into thinking about agriculture, particularly sustainable agriculture. World travel also piqued his interest in the wide variety of agrarian styles utilized in other countries. Upon returning to the states and finishing his degree, Pete decided to intern at a start-up CSA called Fields of St. Croix in order to learn more.

During his two-year internship at Fields of St. Croix, Pete began learning the ins and outs of running a CSA, and was excited to then have the chance to start his own on Bruce's land. Bruce offered a unique opportunity to experiment with different management practices, including permaculture, no-till, and mulching. The Land Stewardship Project, in association with the Minnesota Food Association, included Garden Farme in their CSA directory and gave the farm a chance to participate in their annual community food fair. Through these venues and by word-of-mouth, enough members subscribed to have a successful first season. Garden Farme is beginning its fourth season this year with the help of a dedicated network of interns, volunteers and shareholders.

IV. Resources

This section describes individual resources, mainly non-profit organizations and government agencies with easily accessible services and web sites. It is categorized by general topic headings, so some organizations that cover more than one topic are listed in each applicable heading. For specific publications, please refer to the Bibliography. Most of these organizations are based in Minnesota and others are Midwestern. These organizations can refer you to national resources if you desire more information.

Each citation is listed in the following format:

Category

Organization Name

Description of organization

Contact Information

Agroforestry

Farming with trees!

Badgersett Research Corporation

This private corporation carries out research on growing hazelnuts (filberts) and chestnuts as crops. It provides nursery plants, information and some technical support to growers interested in woody agriculture.

Badgersett Research Farm, RR 1, Box 141, Canton, MN 55922-9740 USA, e-mail: electricflanl@hotmail.com, web: <http://www.badgersett.com>

Center for Integrated Natural Resources and Agriculture Management

CINRAM provides publications on agroforestry, snow fences, and marketing forest products in Minnesota, which are available on-line or through University of Minnesota Extension Service.

University of Minnesota, 115 Green Hall, 1530 Cleveland Ave. N., Saint Paul, MN 55108. Phone: (612) 624-4299 / 7418 / 4296, fax: (612) 625-5212, e-mail: CINRAM@forestry.umn.edu, web: www.cnr.umn.edu/FR/cinram/

University of MN Extension: (800) 876-8636.

Community Forestry Resource Center

CFRC provides information and publications on forest owner cooperatives, assistance in setting up cooperatives, and support of certification of sustainable forest management.

Community Forestry Resource Center, c/o IATP, 2105 1st Ave. S., Minneapolis, MN 55404. Phone: (612) 870-3407, fax: (612) 870-4846, e-mail: forestrycenter@iatp.org, web: www.forestrycenter.org.

USDA National Agroforestry Center

This center provides free publications addressing several aspects of agroforestry and links to agroforestry-related on-line resources. This is a great place to go to get an overview of agroforestry.

North 38th St. & East Campus Loop, UNL-East Campus, Lincoln, Nebraska 68583-0822. Phone: (402) 437-5178, web: <http://www.unl.edu/nac>.

Land Conservation and Preservation

Getting help with improving and conserving agricultural land and open space.

1000 Friends of Minnesota

This organization is committed to protecting Minnesota's magnificent environment. Its publications on land protection resources are available on-line, and provide explanations of the variety of land protection options available in Minnesota.

370 Selby Avenue (Suite 300), Saint Paul, MN 55102. Phone: (651) 312-1000, fax: (651) 312-0012, e-mail: info@1000fom.org, web: www.1000fom.org.

The Minnesota Land Trust

Learn about conservation easements, purchase of development rights and land trusts through this esteemed organization.

2356 University Ave. W., Suite 400, St. Paul, MN 55114. Phone: (651) 647-9590, fax: (651) 647-9769, e-mail: mnland@mnland.org, web: <http://www.mnland.org>.

Trust for Public Land

This national organization helps communities create a "greenprint for growth" by protecting important land that may be threatened by urban or suburban sprawl. TPL has helped many Minnesota communities protect parkland, river bluffs and open space.

Midwest Regional Office, 2610 University Ave., Suite 300, St. Paul, MN 55114. Phone: (651) 917-2240, fax: (651) 917-2248, web: <http://www.tpl.org>.

Farm Diversification Options

Find out more about the many possibilities in Minnesota.

Agricultural Utilization Research Institute (AURI)

With offices in Crookston, Morris, Waseca, St. Paul, and Marshall, AURI helps producers across the state explore new agricultural innovations with research, financial aid, marketing and more.

AURI St. Paul Office, 1380 Energy Lane, Suite 210 West, St. Paul, MN 55108-5253. Phone: (651) 603-8108, fax: (651) 637-2851, web: <http://www.auri.org>.

Appropriate Technology Transfer for Rural Areas (ATTRA)

ATTRA is a nationwide organization that provides information on sustainable agriculture, alternative crop and livestock enterprises, and innovative marketing. Call ATTRA with any questions, and one of their experienced staff members will compile a packet of pertinent publications and information tailored to individual farms, free of charge.

P.O. Box 3657, Fayetteville, AR 72702. Phone: (800) 346-9140, web: <http://www.attra.org>.

Minnesota Grown Opportunities

The MGO web site has hundreds of links to information on diversification opportunities and cropping, livestock, farming systems, marketing, and value-added options.

352 Alderman Hall, 1970 Folwell Avenue, St. Paul, MN 55108. Phone: (612) 625-4707, fax: (612) 625-4237, e-mail: mgo@tc.umn.edu, web: <http://www.mgo.umn.edu>.

National Agricultural Library

The Alternative Farming Systems Information Center (AFSIC) of the NAL provides bibliographies on alternative farming practices and links to similar pages on its web site. Topics include sustainable and organic agriculture, urban agriculture, and small farm issues.

Alternative Farming Systems Information Center, National Agricultural Library, Rm 304, 10301 Baltimore Ave., Beltsville MD 20705-2351. Phone: (301) 504-6559 or (301) 504-5724, fax: (301) 504-6409, e-mail: afsic@nal.usda.gov, web: www.nal.usda.gov/afsic.

Renewing the Countryside

This local organization collects case studies of people and organizations in (mostly rural) Minnesota working to improve their communities by creating a more sustainable local economy and ecology. Reading these inspiring case studies is a good way to get ideas about small sustainable enterprises that are possible in Minnesota.

Web: www.mncountryside.org.

Financial and Technical Assistance

How to get help to meet your goals.

The Energy and Sustainable Agriculture Program

Established in 1987 by the Minnesota Department of Agriculture in response to concerns over the impact of conventional agricultural practices on farm profitability, health and the environment. The purpose of the program is to demonstrate and promote alternative practices which are energy efficient, environmentally sound, profitable and which enhance the self-sufficiency of Minnesota farmers. ESAP provides grants and loans to producers who are working toward this purpose, and publishes the results every year in the *Greenbook*.

Minnesota Department of Agriculture, 90 West Plato Boulevard, St. Paul, Minnesota 55107. Phone: (651) 296-7673, (651) 297-7678, web: <http://www.mda.state.mn.us/esap/>

Minnesota Grown Opportunities

MGO lists a clearinghouse of funding and assistance sources for farmers, communities, organizations and businesses.

Web: <http://www.mgo.umn.edu/opportunity>.
(For address, see entry under “Farm Diversification” category)

Sustainable Agriculture Research and Education (SARE)

This arm of the USDA has regional offices and state coordinators who help forward the goals of sustainable agriculture by providing research and education grants to farmers and

agricultural educators and professionals. Check out their web site to find out about their projects nationwide.

North Central Region SARE, University of Nebraska-Lincoln, 13A Activities Bldg., PO Box 830840, Lincoln, NE 68583-0840. Phone: (402) 472-7081, fax: (402) 472-0280, e-mail: ncrsare@unl.edu, web: www.sare.org/ncrsare. Minnesota Coordinator: Bill Wilcke, phone: (612) 625-823, e-mail: wilck001@umn.edu.

University of Minnesota Extension Service

Local Extension Agents can help identify resources in your area and beyond.

Phone: (612) 624-1222, e-mail: dir@extension.umn.edu, web: www.extension.umn.edu/offices.

Small Business Advice and Assistance

Business Retention and Expansion Program of the University of MN Extension Service

By working on a community level with local businesses and leaders, the BR & E Program helps strengthen local economies.

Michael Darger, Director, BR&E Strategies Program, Department of Applied Economics, University of Minnesota, 249D Classroom Office Building, 1994 Buford Avenue, St. Paul, Minnesota 55108. Phone: (612) 625-6246, web: www.extension.umn.edu/projects/bre/index.html.

EntreWorld.org

This on-line resource provides information and search engines on small business topics such as starting and growing small businesses.

Web: <http://www.entreworld.org>.

Minnesota Department of Trade and Economic Development

Both the Small Business Assistance Office (SBAO) and the Small Business Development Centers (SBDCs) operate out of this department. The SBAO offers information on small business development and expansion, and the regional SBDCs provide individual business management counseling.

Department of Trade and Economics, 500 Metro Square Building, 121 East 7th Place, St. Paul, MN 55101-2146. SBAO: (651) 282-2103 or (800) 657-3858, Metro (St. Thomas) SBDC: (651) 962-4500, web: www.dted.state.mn.us.

Partners for Enterprise

This business development center serves the northwest suburbs by providing free and confidential assistance to people starting or expanding businesses with the overall goal of improving the economic strength and social well-being of their community through individual empowerment.

7000 Bass Lake Rd., Suite 201, Crystal, MN 55428. Phone: (612) 978-2187, e-mail: pfemoze@aol.com.

Riverbend Center for Enterprise Facilitation (RCEF)

The RCEF nurtures, encourages, mentors and supports homegrown innovation in the southcentral region of Minnesota.

RCEF, Northwestern Office Bldg., 209 S. 2nd St., Suite 310, Mankato, MN 56001. Phone: (507) 386-7285, e-mail: rcef@mnice.net.

Small Business Association

This government agency was created by Congress in 1953 to help America's entrepreneurs form successful small enterprises. Today, SBA's program offices in every state offer financing, training and advocacy for small firms.

Minnesota District Office, 100 North Sixth Street, Suite 610-C Butler Square, Minneapolis, MN 55403. Phone: (612) 370-2324, fax: (612) 370-2303, web: <http://www.sbaonline.sba.gov>.

Sustainable Communities

Living sustainably wherever you are.

American Community Gardening Association

This is one of the oldest and most organized community gardening organizations in the United States. It has a great web site with links to lots of urban gardening information and advice on how to start your own community garden.

100 N. 20th Street, 5th Floor, Philadelphia, PA 19103-1495. Phone: (215) 988-8785, fax: (215) 988-8810, email: smccabe@pennhort.org, web: <http://communitygarden.org>.

Minnesota Institute for Sustainable Agriculture

This unique program provides a database of resources pertaining to sustainable agriculture in Minnesota and beyond.

University of Minnesota, 411 Borlaug Hall, St. Paul, MN 55108-1013. Phone: (612) 625-8235/1-800-909-MISA (6472), fax: (612) 625-1268, e-mail: misamail@tc.umn.edu, web: <http://www.misa.umn.edu>.

Minnesota Sustainable Communities Network (MnSCN)

This network, supported by the Office of Environmental Assistance, consists of over 1,500 individuals, non-profit organizations, businesses, local governments, educational institutions, and other organizations in Minnesota (and bordering areas) who are interested in moving toward sustainability. Areas of focus include agriculture, energy and individual choices.

Sustainable Communities Team, MN Office of Environmental Assistance, 520 Lafayette Rd. N., 2nd Floor, St. Paul, MN 55155-4100. Phone: (651) 296-3417 or (800) 657-3843, web: www.nextstep.state.mn.us.

Sustainable Resource Center

This is where to get information on community gardening in the Twin Cities. SRC's Urban Lands program helps community gardens lease and insure lots, provides seed, and connects individuals to garden plots.

1916 2nd Ave. S., Minneapolis, MN 55403. Phone: (612) 870-4255.

Wild Ones – Natural Landscapers, Ltd.

This national organization has local chapters across the midwest where members share expertise to work toward a sustainable environment by landscaping with native plants. Wild Ones can provide information on native plants and landscaping.

Phone: (920) 730-3986, web: <http://www.for-wild.org>.

V. Bibliography

Most of the entries in this section can be found on-line or ordered by mail for free or a minimal charge. Some publications may be available at your local Extension office or library as well. Prices are listed where applicable, and ordering information follows each entry.

Agroforestry

Agroforestry in Minnesota: A Guide to Resources and Demonstration Sites. Scott, Josiah, et. al. 1999. St. Paul: CINRAM and Univ. of MN Extension Service.

This publication describes different kinds of agroforestry practiced on sites in Minnesota, and lists individuals and organizations with knowledge to share.

Available hardcopy from Extension at: (612) 624-4900 or (800) 876-8636 for \$10 (ask for item # 07275-60) or at

<http://www.extension.umn.edu/distribution/naturalresources/DD7275.html>

Balancing Ecology and Economics: A Start-up Guide for Forest Owner Cooperation.

2000. Madison: Cooperative Development Services, Univ. of WI Center for Cooperatives and Community Forestry Resource Center.

This is a guide to effective forest owner cooperation and includes information on the benefits (and drawbacks) of cooperation and a discussion of the key issues for sustainable forestry coops to consider.

Available from IATP on-line at:

http://www.forestrycenter.org/library/admin/uploadedfiles/Manual_Website2_2.htm and hardcopy for \$13 (includes shipping and handling) at (612) 870-3407.

Funding Sources

Building Better Rural Places. 2001. USDA.

This is a comprehensive guide to federal programs for sustainable agriculture, forestry, conservation and community development.

Available from ATTRA. Phone: (800) 346-9140, web:

<http://www.attra.org/guide/index.htm>.

Financial Assistance Directory: 1999-2001. 1999. St. Paul: MN DNR.

Financial assistance available from MN DNR for: forest management, habitat improvement, land protection, recreation and water sources.

Available on-line or hardcopy from Department of Natural Resources, 500 Lafayette Road, St. Paul, MN 55155-4040. Phone: (651) 296-6157 (Metro Area), (888) MINN-DNR or (888) 646-6367, web: www.dnr.state.mn.us/omb/financial_assistance

Incentives for Wildlife Enhancement on Midwestern Farms. Robles, Marcos. 2000. Minneapolis: IATP.

Examples of marketing strategies, private and public sector stewardship incentive programs (financial and technical assistance, tax incentives and more), and resources.

Available on-line or hardcopy from IATP. Phone: (612) 870-0453, web:

www.iatp.org/enviroag

Land Protection Strategies

Conserving Wooded Areas in Developing Communities: Best Management Practices in Minnesota. 1999. MN DNR.

This is a great tool for city planners, developers, citizens and all others involved in land use planning. It provides concise information on Best Management Practices at the landscape and subdivision level and wonderful references and resources.

Available from MN DNR's Metro Region Office, 1200 Warner Rd., St. Paul, MN 55103.
Phone: (651) 772-7900.

From Policy to Reality: Model Ordinances for Sustainable Development. Biko Associates, inc., Desotelle Consulting and BRW, Inc. 2000. Minnesota: Minnesota Environmental Quality Board and Biko Associates, Inc.

This thorough examination of how to implement ordinances for sustainable development addresses growth management, managing community resources, neighborhood design, infrastructure, resource efficient buildings and economic development.

Available on-line at:

<http://www.mnplan.state.mn.us/pdf/2000/eqb/ordinances/ModelOrdWhole.pdf>.

Land Protection Options: A Handbook for Minnesota Landowners. Laurie Allman. 1996. Minneapolis: The Nature Conservancy, MN DNR, Trust for Public Land, and the MN Land Trust.

A survey of land protection options for landowners including information on taxes and local and national resources.

Available on-line or hardcopy from the Great Plains web site:

www.greatplains.org/resource/1998/landprot/landprot.htm

Natural Areas: Protecting a Vital Community Asset. Allman, Laurie. 1997. St. Paul: MN DNR.

This workbook for Minnesota's local governments advises how to protect public and private natural areas and lists land protection tools. It includes sections on financing land acquisition, management of natural areas, and resources.

Available on-line at: <http://www.greatplains.org/resource/1999/natural/natural.htm>.

Planning for Open Space Conservation in Your Community: The Green Corridor Project Shares Its Lessons Learned. The Green Corridor Project. 1999. St. Paul: 1000 Friends of Minnesota.

Washington and Chisago Counties share the goals and strategies of their Green Corridor Project and include some handy fact sheets on different types of land protection and financing.

The bulk of this publication is available on-line from 1000 Friends of Minnesota at:
<http://www.1000fom.org/conservation.htm#greencorridor>

Farm Diversification

Direct Farm Marketing and Tourism Handbook

This Handbook is published in Arizona, but highly applicable to any landowner wishing to do direct marketing or tourism on their land. It includes business and legal considerations, market trends, and other useful information.

Available on-line from: <http://ag.arizona.edu/arec/pubs/dmkt/dmkt.html> or for \$25 from Russ Tronstad, Extension Economist. Phone: (520) 621-2425, e-mail: tronstad@ag.arizona.edu.

Emerging Markets for Family Farms: Opportunities to Prosper Through Social and Environmental Responsibility. O'Neill, Kelly. 1997. Walthill, NE: Center for Rural Affairs.

This excellent resource outlines the elements of success and barriers to value added processing and marketing enterprises for beginning farmers. Based on a survey of midwestern farms, it suggests products with the greatest market potential and gives advice on cooperative relationship possibilities.

Available for \$7 from the Center for Rural Affairs, 101 S Tallman St, PO Box 406, Walthill, NE 68067. Phone: (402) 846-5428, fax: (402) 846-5420, e-mail: info@cfra.org, web: <http://www.cfra.org>. Also available from public libraries.

The Greenbook. Published yearly by the Energy and Sustainable Agriculture Program, MN Dept. of Agriculture. Compiled by the Energy and Sustainable Agriculture Program Staff.

The *Greenbook* is ESAP's annual summary of activities, grant project reports, and invited essays.

Available free of charge from the Energy and Sustainable Agriculture Program, Minnesota Department of Agriculture, 90 West Plato Boulevard, Saint Paul, Minnesota 55107. Phone: (651) 296-7673, e-mail: Alison.Fish@state.mn.us, web: www.mda.state.mn.us/esap/Greenbook.html (to view the 1999 and 2000 editions).

Incentives for Wildlife Enhancement on Midwestern Farms. Robles, Marcos. 2000. Minneapolis: IATP.

Examples of marketing strategies, private and public sector stewardship incentive programs (financial and technical assistance, tax incentives and more), and resources.

Available on-line or hardcopy from IATP. Phone: (612) 870-0453, web: www.iatp.org/enviroag.

Marketing Sustainable Agriculture: Case Studies and Analysis from Europe. 1998.

Institute for Agriculture and Trade Policy.

Case studies of marketing sustainable agriculture in several European countries; includes themes of successful marketing innovations.

Available for \$15 from the Institute for Agriculture and Trade Policy, 2105 1st Ave S., Minneapolis, MN 55404. Phone: (612) 870-3453, web: www.iatp.org.

Sustainable Communities

2000 Digest of Resources for Building Sustainable Communities. Minnesota Sustainable Communities Network. 2000. St. Paul: MN Office of Environmental Assistance.

Directory of resources for everything sustainable, from agriculture to building plans.

Available on-line or hardcopy from NextStep: Phone: (651) 296-3417/(800) 657-3484, web site: www.nextstep.state.mn.us.

Finding Food in Farm Country: The Economics of Food and Farming in Southeast Minnesota. Ken Meter and Jon Rosales. 2001. Community Design Center: Hiawatha's Pantry Project.

This regional analysis of the economics of the food system in Southeast MN is useful reading for considering the big picture of agriculture and the effects of local enterprises.

Available free by contacting Dellane Webster at the Office of Environmental Assistance. E-mail to dellane.webster@moea.state.mn.us or call (651) 215-0239 or (800) 657-3843.

Minnesota Grown Directory. Published yearly by the Minnesota Dept. of Agriculture.

This Directory lists over 500 Minnesota growers, producers, and farmers' markets by region and by product.

Available free of charge and on-line from the Minnesota Department of Agriculture, Minnesota Grown Program, 90 West Plato Boulevard, St. Paul, MN 55107-2094. Phone: (651) 297-4648, e-mail: mngrown@state.mn.us, web: www.mda.state.mn.us/mngrown/wherebuy.html.

VI. Glossary

This publication utilizes some words and concepts that are interpreted in many different ways. Therefore, for the sake of clarity, this section offers some brief definitions.

Agriculture

“Agriculture” in the United States mainly refers to large farms growing commodity crops. This publication would like to stretch (or shrink, to be more precise) the term “agriculture” and apply it to small-scale growers like truck farms, community supported agriculture ventures, herb growers, sustainable forestry cooperatives and vineyards. Although these things are more akin to horticulture or gardening in most Americans’ minds, their aggregate effect can become as large as that of traditional agriculture, especially in the realm of educational, social, and political impact.

Ecology

Ecology refers to the dynamic relationships in living systems, between objects and subjects, plants and animals, minerals and microbes, and all the other complex interactions that take place constantly in the environment. To change the ecology is to alter a system and its environment. Likewise, to change the environment alters the ecology.

Environment

This term is used in reference to the objects that make up the surrounding space of the subject in relation to how they affect the subject. These objects include plants, animals, people, buildings and everything else that is tangible.

Land-Based Production

This phrase is used interchangeably with “agriculture.” It is meant to convey that farmers/growers produce not just food crops, but also animals, medicinals, fibers, wood, value-added products and more.

Metropolitan Area

For this publication, the metropolitan area refers to the seven county area in southeast Minnesota that has the highest density population in the state. The counties are: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington.

Microenterprises

These are small, generally home-based businesses and hobbies carried out by individuals or small groups of people.

Open Space and Green Space

These terms both refer basically to areas that do not have buildings or roads and ideally to natural areas or land in sustainable agriculture. Open space tends to be used more in reference to agricultural land or prairie. Green space more often refers to natural or recreational areas such as forests, parks, and wetlands.

Sprawl

This refers to a type of residential, commercial or industrial development that is generally unplanned and low density. It occurs in the rural areas of counties surrounding metropolitan areas and leads to ecological degradation and species decline. Sprawl results in conflicts of interest between old and new occupants of an area. The Green Sprawl Working Group works within the concept of sprawl to try to develop a paradigm in which development can happen alongside the preservation of agriculture and open space.

Sustainable/Sustainability

This word basically means “providing for this generation without compromising the ability of future generations to provide for themselves.” This publication will build on that concept and use “sustainability” to mean that ecological, economic and social needs are balanced. In this sense, a sustainable project is a project that works within ecological boundaries to provide social and economic wellbeing.